19990425.ba v02_n519.bam.990425

```
>From ???@??? Mon Apr 26 08:05:11 1999
Message-Id: <199904252041.PAA12461@sco.theporch.com>
Date: Sun, 25 Apr 1999 15:40:49 CDT
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2519
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BOATANCHORS Digest 2519

Topics covered in this issue include:

1) Re: FS: HP 8640 B 323 Option
   by John M Iverson <jackiv@juno.com>
2) connector needed-Ford Surplus FB
   by john <johnmb@mindspring.com>
3) Re: 1927 "Soladyne no B+ circuit"
   by "Barry L. Ornitz" <ornitz@tricon.net>
4) Pot metal in SCR-522 radio
   by Hue Miller <kargokult@proaxis.com>
5) RE: Loktals
   by Hue Miller <kargokult@proaxis.com>
6) Boatanchors and Military Forum at Ham Com
   by Lenox Carruth <carruth@geo-thermal.com>
7) HP 8640B MANUAL
   by Dan Arney <kn6di@groupone.net>
8) G133F/51S1 help sought (again)
   by Tom Norris <badger@telalink.net>
9) Random BA Stuff FS
   by don merz <71333.144@compuserve.com>
10) Vintage Mobile rigs
   by "Roger A. McCarty" <rmccarty@earthlink.net>
11) Neeeded: HQ-170 Power Transformer
   by ARONGV@aol.com
12) Re: Alfred P. Morgan in 1914: shack layout, etc.
   by Bill Ross <billross@txdirect.net>
13) Valiant tentativly sold
   by "Al Fritsche" <fritsche@email.msn.com>
14) The Saga of my KWS-1 (long)
   by Dan Arney <kn6di@groupone.net>
15) ADMINISTRIVIA: A Few Does and Donts
   by listown@jackatak.theporch.com (Mail List Owner)
16) Re: Receiver alignment with sweep generators
   by Scott Robinson <spr@earthlink.net>
17) Re: Receiver alignment with sweep generators
   by "Mike B. Feher" <n4fs@monmouth.com>
18) Re: Receiver alignment with sweep generators

by "Arden Allen" <gumbear@pacbell.net>
19) RE: vintage mobile
by Ralph Parker <rparker@istar.ca>
20) Re: More Receiver alignment
by Hue Miller <kargokult@proaxis.com>

To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Date: Sat, 24 Apr 1999 19:43:04 -0500
Subject: Re: FS: HP 8640 B 323 Option
Message-ID: <19990424.194426.16422.0.jackiv@juno.com>
From: John M Iverson <jackiv@juno.com>

You say 400 for the gen plus ship, ok. but why 450 for a manual?   jack
Jack Iverson   K0EWU   jackiv@juno.com
ARRL, IEEE LM, RCA, AMI, ARCI, QCWA,CCA

On Sat, 24 Apr 1999 15:42:37 -0700 Dan Arney <kn6di@groupone.net> writes:
> HP 8649B 323 option signal generator in clean yellow military transit
>case. This is a operating unit and very stable. Professionally packed,
>$400.00 certified funds, cash or personal check to clear. Plus UPS,
>ships as 70 to 71 pounds packed. Shipped as 70 pounds minimium to get
>slight amount of spwcial handling by UPS.
>
>A very good complete bound copy of the manual for this unit is
>available
>from Ed Matsuda San Diego,CA. ematsuda@earthlink,net for 450.00
>postpaid.
>
>Thanks,
>Hank
>
>

____
You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at http://www.juno.com/getjuno.html
or call Juno at (800) 654-JUNO [654-5866]

Message-Id: <3.0.3.32.19990424205936.00c47988@mindspring.com>
Date: Sat, 24 Apr 1999 20:59:36 -0400
To: Old Tube Radios <boatanchors@theporch.com>
From: john <johnmb@mindspring.com>
Subject: connector needed-Ford Surplus FB
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I just took delivery of one of the multicouplers from Ford
Surplus, and am happy with the prospect of of ending some of the
wiring nightmare here in Clayton Radio Central.

Ford was out of the power cord, which is no problem, but
the lack of the connector is a bit of a headache.

Can anyone help? The proper connector is a mil-type barrel connector (Cannon?)
with the pinout (female) very very similar to that of a 3 pin XLR connector
with a threaded ring.

I've hacked an aforementioned XLR out of the junk box to work for the time
being, but if you've got something that sounds like the "right tool for the
job"
I'd appreciate the opportunity to buy it from you...

Thanks
/John

```
+-------------------------------------------------------
| John Brewer- WB5OAU/4
| AMI #24    Vintage Radio Website
| http://www.mindspring.com/~johnmb/
+-------------------------------------------------------
```

Message-Id: <199904250131.VAA23374@flash.naxs.net>
From: "Barry L. Ornitz" <ornitz@tricon.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: 1927 "Soladyne no B+ circuit"
Date: Sat, 24 Apr 1999 21:33:43 -0400

Hue and group,

I don't think this is an April Fool's article. From your description, it sounds like the tube is being used as a space-charge triode. The small positive voltage on G1 creates a fairly large electron cloud. Some of the electrons are intercepted by G1 but most pass on through to the actual plate. G2 is used to control this amount making the tube effectively a triode.

>assuming this is not a joke article, this seems to me the first
>appearance of the "B+ less receiver circuit", seen again in the
>late 1930s and early 40s as a "B+ less" or "emergency receiver",
>and which came to be known later (in the postwar years??) as the
>"space charge circuit".

The small peanut tubes developed in WWII are often used this way. They work well. In the mid- to late-1950's, the tube manufacturers developed conventional tubes designed to work with only 12 volts on the plate. These were used in automobile receivers where they provided the RF and IF functionality and early transistors provided the audio. Two examples are the 12AE6 and 12AE7. I built a superregenerative receiver with the 12AE7 for the aircraft band and two meters. It was quite sensitive but broad as the proverbial "barn door".

73, Barry L. Ornitz WA4VZQ ornitz@tricon.net

Message-Id: <3.0.5.32.19990424193805.007c48b0@proaxis.com>
Date: Sat, 24 Apr 1999 19:38:05 -0700
To: Old Tube Radios <boatanchors@theporch.com>
From: Hue Miller <kargokult@proaxis.com>
Subject: Pot metal in SCR-522 radio
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

regarding pot metal in radios, it also shows up in the connectors on the AAF SCR-522 radio. here's an email i received on this topic:

>Hue, I remember back in the 50's..while in the military in UK...about
>warning notices on tightening these connectors. A "strap wrench" was
>supplied that limited torque coupling while ensuring that the "felt
torque" on the connector was evenly spaced around the periphery. In
>1950 it was an imperative..then..its 1999 now!!

>My personal feelings on these series of connectors is that the thread
pitch is too fine and the connector metal is of a "pot" variety.

>In the 1950's we were still "flying" SCR-522's in A/C as well as
>using them as ATC "standy by" units.

Message-Id: <3.0.5.32.19990424194803.007ef2a0@proaxis.com>
Date: Sat, 24 Apr 1999 19:48:03 -0700
To: Old Tube Radios <boatanchors@theporch.com>
From: Hue Miller <kargokult@proaxis.com>
Subject: RE: Loktals
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 03:46 AM 4/19/99 -0700, Jim Berry wrote:

>
>Take a trip to this site and see where the idea of the loctal tube actually
>probably came from.
>http://www.netcomuk.co.uk/~wwl/old.html
>
>Jim K7SLI

--altho the photographs are just great, i'm not convinced Germany
had the loktal idea first. the octal originated here, and was copied
by Germany and Japan and USSR, and i'd guess the loktal originated
here also.
hue ka7lxy

Message-ID: <37228D92.7F496AEA@geo-thermal.com>
Date: Sat, 24 Apr 1999 22:35:47 -0500
From: Lenox Carruth <carruth@geo-thermal.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Boatanchors and Military Forum at Ham Com
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

There will be a Boatanchors and Military Radio forum at Ham Com in Dallas this year. It will officially be from 12 until 1 pm on Saturday but I am told we can have the room as long as we want. We will start with boatanchors and conclude with military radios so those who might not have an interest in the later military stuff can leave.

The FCC forum starts at 1 pm so there will be overlap if some want to attend that, potentially contentious, forum!

I will post more details as they become available. If anyone plans to attend and has a particular subject that they would like to discuss please let me know by private e-mail.

See you there!

--

Lenox

Lenox Carruth   Dallas, TX   carruth@geo-thermal.com
Collector of WW-II Communications Equipment and Memorabilia

Wanted: TBX accessories,   GY-11,   WW-II era Sextant

Message-ID: <37229501.2F3A42D@groupone.net>
Date: Sat, 24 Apr 1999 21:07:29 -0700
From: Dan Arney <kn6di@groupone.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: HP 8640B MANUAL
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Well, as it was pointed out to me the actual cost of the for the unit is $50.00 As to can now see I got my hunt and peck devices hitting the correct keys. Fumbled on the shifter Hi. Now none of us ever fumbled on the shifter did we????
Sorry,
Hank

Message-Id: <3.0.5.32.19990424232417.00890250@mail1.telalink.net>
Date: Sat, 24 Apr 1999 23:24:17 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Tom Norris <badger@telalink.net>
Subject: G133F/51S1 help sought (again)
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Finally picked up the G133F today, and it works quite well, except no AM. I have a manual on the way, but in the meantime does someone have any pointers as to what to look for? I get an indication on the meter, but no audio out. AM BFO doesn't work either.

Good receiver otherwise, easy to use. I have always wanted a 51S1, so now I have one. And this particular package looks really neat with its black matte backlit panel.

73 all

Tom KA4RKT

Date: Sun, 25 Apr 1999 00:33:24 -0400
From: don merz <71333.144@compuserve.com>
Subject: Random BA Stuff FS
To: Old Tube Radios <boatanchors@theporch.com>
Message-ID: <199904250036_MC2-734B-F3EA@compuserve.com>
MIME-Version: 1.0
Content-Transfer-Encoding: 7bit

```
Content-Type: text/plain; charset=us-ascii
Content-Disposition: inline

 Boatanchors And Such For Sale

 CONTACT: Don Merz, N3RHT, 47 Hazel Drive, Mt. Lebanon, PA  15228
          71333.144@compuserve.com

 Hallicrafters S-38D receiver. Entry-level general coverage radio for SWL
   and ham use with large slide-rule dial. Has some scratches on sides but
   front panel is very good. All original including knobs and clean dial.
   Dial strings intact. Paint needs buffed out to remove surface blemishes.
   The tuning knob shaft is bent so the knob is eccentric when turned but
   still functional. With original cardboard back and original "Owner
   Operating Guide S-38D." I plugged it it and it doesn't smoke but it
   also doesn't play. $45
 Heathkit OL-1 3" oscilloscope. Small unit in gray cabinet. Needs cleaned
   but should clean up to be in excellent condition. Gets trace but has
   hum on trace and and probably needs other tweaks. All original.
   As-is. $15
 HP 200CD Audio Oscillator. Classic HP BA test gear. This is an older one
   with the older style knobs. Leather handle missing. Needs cleaned. I
   powered this up and got no smoke and no sine waves. As-is. $20
 Military OCT-3 Frequency Shift Monitor. 1948-vintage rackmount unit
   designed to sample output from an FSK transmitter and read out the
   frequency shift on the large meter on the front panel. The unit is
   tunable from 1.0 to 26.0 MC and is basically a sophisticated but
   insensitive receiver. Navy gray, 19" rackmount 10-1/2" high. Brand
   new but showing some spots of corrosion on the aluminum tags on
   the front panel. Fabulously well-built by Hazeltine Corporation.
   With 2 copies of the original manual, calibration charts and original
   power cord. Untested. $40. Big and heavy.
 Bogen CT-60 Acousta-Master PA Amplifier. 4 mic inputs (2 high and 2
   low impedance) and 2 AUX inputs. With graphic equalizer and built
   in compression. Uses Cannon XLR connectors for input. 60W RMS. Some
   scratches on top and several of the aluminum inserts are missing from
   the knobs. But this amp works great. No scratchy controls, hum or other
   problems--just a clean 60 watts. With original manual. $60
 Korg Poly 800 II synthesizer. Classic synth with full size keys and complete
   MIDI support. Some scuffs but overall excellent original working
   condition. With wall-wart power supply and manual copy. $110
 Yamaha RX21L Digital Rhythm Programmer (drum machine). This has great
   rhythm sounds--conga, tamborine, bongo, claves, and much more and
   a super set of predefined rhythm sequences. Compact, easy-to-use
   unit with MIDI and cassette support. Nice. Excellent, original working
   condition. With wall-wart power supply. $50

 CONTACT: Don Merz, N3RHT, 47 Hazel Drive, Mt. Lebanon, PA  15228
```

71333.144@compuserve.com

From: "Roger A. McCarty" <rmccarty@earthlink.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Vintage Mobile rigs
Date: Sat, 24 Apr 1999 22:42:39 -0700
Message-ID: <000e01be8ede$6e4a4e80$0100000a@accurate-main>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I think I have found the oldest mobile rigs. Check out;

http://www.accurate-electronics.com/vintagemobile/vintagemob
ile.jpg

and

http://www.accurate-electronics.com/vintagemobile/vintagemob
ile2.jpg

and

http://www.accurate-electronics.com/vintagemobile/radiolizz1
.jpg

73

Roger KD6CC

Roger A. McCarty ARS KD6CC So. Calif.
http://www.qsl.net/kd6cc
http://www.qsl.net/kr6lp
Qrp-L #1555 KR6LP #1

From: ARONGV@aol.com
Message-ID: <d7dc0bc7.24541751@aol.com>
Date: Sun, 25 Apr 1999 02:59:29 EDT
Subject: Neeeded: HQ-170 Power Transformer
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

I need a power transformer for this receiver. The HQ-170 I have is very nice looking, very complete and seems to have no mods.

Can anyone help me?

Ron W0OIZ
arongv@aol.com

Message-ID: <3722BF5B.92EA2BBF@txdirect.net>
Date: Sun, 25 Apr 1999 02:08:11 -0500
From: Bill Ross <billross@txdirect.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Alfred P. Morgan in 1914: shack layout, etc.
Content-Type: text/plain; charset=koi8-r
Content-Transfer-Encoding: 7bit

"Roberta J. Barmore" wrote:

> The good Mr. Morgan the the USN give us the following guide that still
> apllies to a BA hamshack--at least a "starter" one:
> ... High potential leads should be kept away from low potential
> leads and where they cross it should be at nearly right angles.

I first read this wire dressing practice in Boy's Life in the 1930s and do believe that the article was written by the subject gentelman. So long ago, in fact, that I had let it slip from my mind. Now if I could just remember all that other stuff that has slipped...

Bill Ross K5LLK

Message-ID: <001401be8f1f$ffb59140$6af5fed0@noname>
From: "Al Fritsche" <fritsche@email.msn.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Valiant tentativly sold
Date: Sun, 25 Apr 1999 08:29:21 -0500

Hi , the Valiant has been tentativly sold..

Still have the Matchbox for 75 dollars + shipping.

I can handle shipping on this little guy..

73
Al

KD5CML

Message-ID: <37232878.8D86A256@groupone.net>
Date: Sun, 25 Apr 1999 07:36:40 -0700
From: Dan Arney <kn6di@groupone.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: The Saga of my KWS-1 (long)
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

The ongoing battle of my SN 150 continues on the road to brightness as we can now see some light at the end of the tunnel.

After my posting a few months ago, asking for help, hints, suggestions and ideas. The responses from all have pointed to the correct branch of the tunnel after a few dead ends and cul-de-sac's.

A. Had to dig up the 15 pin interconnect plug and wire up, check out and De-oxit the pins.

B. Get the interlock circuit holding hands again so all of the little relays would stop chattering and stay together.

C. Replace the 866's with 3B28's. Got HV but then could not get the little devil to in the cabinet, just took off into never never land. Kind of but it on the back burner and took off on another few projects in the line up. In this lifetime as it is going now I will have something to do until I have to start pushing up daisies. Which I at least need to turn 100 to be an old fogey, at that point I need 37 more years.

So Electric Radio comes up with an article by Alex Samson about his KWS-1 and all of the problems he encountered and all of his innovative ideas and solutions. Had no listed phone number but his address was only about 4 miles away so I proceeded to go knock on his door (garage that is) The door opened and there was Alex who after I stated my reason for knocking invited me into his shack to admire his handy work first hand.

All I can say is he did some one up-manship on Collins. The unit looks fantastic. So after some pleasant conversation and a few hints he said maybe I can help you. Now that has turned out to be the understatement of the year. We are now into weekend trysts with SN 150 and plugging away.

D. We replaced the 4CX250's which caused it to stay out long enough to determine that the Tuning and load controls were not counting off the turns in the proper order of 1 full turn to 1 point on the inner dial. Alex said well it is now time to do his mod on the turns counter. I ordered 20 turn knobs from Allied. They sent shiny ones, had to swap for black ones. Alex had an extra set of the knurled knobs which he sold me. Took those to a friend to get them bored out to fit over the turns counter to get enough torque to turn the network. Mike had to make a special tool for holding the knobs to protect the knurling.

Then had to destroy a couple of wafer switches to get the spacers to accommodate the 1/4" shaft for the knobs. Had to get some 1/4" shaft material to extend the length to grip the new turns counters. I got all of that together and working. Gave Alex a call and said that we were ready in the OR to continue.

E. In the interim I decided that since I had overlays (white) for the drum and the front panel was swinging loose now was the time. How do you glue the overlay onto the drum and have it look neat? CLICK on comes the light. We use computer online shipping with UPS and they furnish labels 2 per sheet for all od the computer generated labels. They come 800 to the case so I grabbed a hand full and away to Kinko's. Made a few copies, came back got the calipers out and made index marks to register the overlay, trip to my shop to trim with the photo trimmer, back to the house. Make new register marks on the drum and label, peel back 1/2 and insert the end of the high band to the mark, you have to carefully bend the pointer out with 75M selected and press the label onto the bottom 1/2 of the drum carefully smoothing it down then rest the drum and peel off the top 1/2 to apply it carefully smoothing it out. 2 hours of prep time and 5 minutes to apply. Looks Great!!

F. Alex now re-enters from stage right and away we go. Plug it in and all of the lights come on the correct sequence, Voltages all check every thing is looking rosy, so away we go to next step.

G. Neutralize the finals with the scope and spectrum analyzer. looks great. Next step.

H. Start in on the alignment, first trimmer no dip, nada not today. Further checking determines that all of the trimmers are stuck. So we get out the surgical tools and start popping out the rotors noting the capacity of each. Alex then departed stage center saying when you get them all polished call me. I put them all in a small jar of jewelers cleaner after separating all of the stators and rubber backing pieces. After soaking it was determined that the cleaner was not going to solve the problem, I then got the Dremel tool some aluminum metal polish, and the pointed buffer wheel and about 2 hours later had all of the little dudes all polished and shiny and wound up with about 5 broken stators. Away to Apex for a look see for the old style trimmers, nada. Called George W6ZZ, Hey George I need some of the old trimmers. OK will look. In the interim, Alex comes on from center stage and we proceed to insert all of the shiny caps back into the respective holes hopefully. Still short 5. George shows up at TRW Sat the 24rh with a bunch of trimmers. They are correct but the newer ones and the stators are glued so out comes the soldering iron and away we go. We now have reworked all of the trimmers except one that is under the rack no way to get that little devil out. We are now ready to do the alignment. Nada! look at that Black beauty split right down the middle C303 .033 400V. Somebody had glued the halves together with an epoxy on both ends. That beauty has now had a burial.

We are now ready to continue with the alignment. Unit is all cleaned up and raring to go shortly. D-104, antenna relay and 75A-4 are waiting just off stage to get in the spotlight. The remainder should be very uneventful says here with crossed fingers and bated breath.

I have to thank all of the input from the reflector and the help from Roy Schantz a Broadcast engineer and good friend of mine and will be forever grateful for the ongoing help from Alex. Doing the trimmers is a true 3 handed operation.

To be continued: briefly, hopefully very shortly with a post of listen to me on AM with my Goldust Twins.

73
Hank KN6DI

Message-Id: <199904251615.LAA27238@jackatak.theporch.com>
From: listown@jackatak.theporch.com (Mail List Owner)
To: Old Tube Radios <boatanchors@theporch.com>
Subject: ADMINISTRIVIA: A Few Does and Donts
Date: Sun, 25 Apr 99 11:15:01 CDT

Gang-

Here are the real basics of how to keep me happy, the list noise-free, and everyone able to enjoy BoatAnchors... Simple, easy, workable...

Do not send spam e-mail messages to the list.

Do not send attachments (attached files) of *ANY* sort to the list. This includes URL shortcuts, v-cards, GEDCOM files, zipped files, and *ANY* other type of attachment.

Do not EVER forward virus hoaxes or chain letters to the list.

Do not use HTML or RTF (rich text format) in messages sent to the list.

DO keep e-mail messages to the list on topic and appropriate.

Do not post commercial messages.

Please refrain from posting "Ebay" type auction notices.

DO be polite.

Do not flame other members of the list.

DO be considerate of the list members and list resources.

DO have fun!
--
73
Jack, W4KH/Mobile - - - Mailing List Archiver/Owner - - -
listown@jackatak.theporch.com - "Plus ca change, plus c'est la meme chose"
     "Il n'y a que les idiots qui ne changent jamais d'idee"
Sun Apr 25 11:15:00 CDT 1999

Message-Id: <v03007800b348ef2f5bf3@[208.255.75.76]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Date: Sun, 25 Apr 1999 08:20:14 -0800
To: Old Tube Radios <boatanchors@theporch.com>
From: Scott Robinson <spr@earthlink.net>
Subject: Re: Receiver alignment with sweep generators

Hue Miller wrote:

>scott, as long as you're hanging something across the AGC line,
>why not just short it to ground, or supply a fixed bias? i recall
>that's what the sweep alignment instructions for tv receivers used
>to say.
>hue

and Scott sez:

Hue,

I have taken the liberty of posting your question and my answer to the BA list since I think it's of general interest.

Sure, you feed the AVC a fixed DC voltage. There are two reasons I did not suggest it. One, with a cap, the receiver can gradually set itself to the appropriate gain for the signal level used and you won't get false measurements due to overload. Two, I don't have a conveniently small adjustable LV power supply to do this with and I suspect that many of the list members don't either.

One of the things to check in such an alignnment is to verify that the IF bandpass characteristic is reasonably constant over large signal level changes. Since the AVC changes the DC plate currents of the IF amps, the permeabilities and therefore inductances of the IF tranny cores may change a little with signal strength, changing the filter shape. Sometimes you need to optimize for the signal strength you are most interested in. For instance, you probably won't be using the a 10 KHz wide filter for very weak signals.

Regards,

Scott Robinson
spr@earthlink.net

Junque is GOOD for you!

```
Message-ID: <004b01be8f54$78e12b40$891bbfd1@n4fs>
From: "Mike B. Feher" <n4fs@monmouth.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Receiver alignment with sweep generators
Date: Sun, 25 Apr 1999 12:47:34 -0700
MIME-Version: 1.0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
```

It would be real easy to make an adjustable LV supply just from a battery and a potentiometer. Current draw on the AVC line is minimal, so a 100K pot across a 9 volt battery would work pretty well. Use the viper as the source and ground the plus side of the battery for negative bias or the minus side for positive. That would let you see what can happen with leaky coupling caps. More batteries can be used depending on bias requirements. Unless you saturate the IF tube, and even then, I doubt if you will ever notice the consequences of any nonlinearities in the materials used in the transformers, like change in permeability and consequent de-tuning. 73 - Mike

Mike B. Feher, N4FS
89 Arnold Blvd.
Howell, NJ, 07731
732-901-9193

 I don't have a conveniently small
>adjustable LV power supply to do this with and I suspect that many of the
>list members don't either.
 Since the AVC changes the DC plate currents of the IF amps, the
>permeabilities and therefore inductances of the IF tranny cores may change
>a little with signal strength, changing the filter shape

Message-Id: <199904251705.KAA13495@mail-gw5.pacbell.net>

From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Receiver alignment with sweep generators
Date: Sun, 25 Apr 1999 10:10:52 -0700
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Sweepers;

Scott makes some good points:

> Sure, you feed the AVC a fixed DC voltage. There are two reasons I did not suggest it. One, with a cap, the receiver can gradually set itself to the appropriate gain for the signal level used and you won't get false measurements due to overload. Two, I don't have a conveniently small adjustable LV power supply to do this with and I suspect that many of the list members don't either.
>
> One of the things to check in such an alignnment is to verify that the IF bandpass characteristic is reasonably constant over large signal level changes. Since the AVC changes the DC plate currents of the IF amps, the permeabilities and therefore inductances of the IF tranny cores may change a little with signal strength, changing the filter shape. Sometimes you need to optimize for the signal strength you are most interested in. For instance, you probably won't be using the a 10 KHz wide filter for very weak signals.]

But on the other hand:

Except in the case where you are doing narrow band or crystal filter alignment you will have to slow the sweep way down (15 Hz or so). The capacitor shunting the AVC bus would have to be quite large and making signal level changes would require long settling times. Any interaction between signal level and AVC voltage will distort the response curve and what appears to be correct and symetrical could be the result of the response curve being distorted to compensate for the gain modulation resulting from the fluctuating AVC voltage.

To avoid this I first plot AVC voltage v/s signal input after a cursory alignment to get sensitivity up. To verify that I'm not overloading I increase the signal level to see if the response curve "hits its head". It's better to be below the normal signal level for a given AVC voltage. Any adjustable power supply that can put out 0-30 volts or so is what will do the job. A battery box with an adjustable IC voltage regulator

(LM-317T) will work nicely, the voltage regulator being required to provide
a low resistance voltage source to the AVC line.

Arden Allen   KB6NAX   Vallejo, CA   gumbear@pacbell.net

Message-Id: <3.0.5.32.19990424224732.007aaa40@istar.ca>
Date: Sat, 24 Apr 1999 22:47:32 -0700
To: Old Tube Radios <boatanchors@theporch.com>
From: Ralph Parker <rparker@istar.ca>
Subject: RE: vintage mobile
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Dick, W6AWO asks:
>But how about vintage mobile on VHF?
My first attempt (1968) was a converted Marconi VHF FM xmtr/rcvr intended
for use as inter-factory mobile communications, I forget the model #.
It drew 13 amps @ 12vdc and produced 1 watt output on 147.33.
Ralph, VE7XF

Message-Id: <3.0.5.32.19990425134328.007f0390@proaxis.com>
Date: Sun, 25 Apr 1999 13:43:28 -0700
To: Old Tube Radios <boatanchors@theporch.com>
From: Hue Miller <kargokult@proaxis.com>
Subject: Re: More Receiver alignment
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

hello all,
say, i'm recalling a BC-348 article in CQ or 73, where the author
had tightened the passband by removing DC plate current from the
IF transformers. he did this by feeding the tube plates thru an
RFChoke, then a coupling capacitor isolated the IF transformer
primary winding, which normally went right to the plate with the
DC current thru it.

so, in short, how's this work? i understand that the DC current
would set up a magnet. does this increase/ decrease the inductance?
if there was a ferrite core, would the effect be more / less?

thanks, hue ka7lxy

End of BOATANCHORS Digest 2519

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